

Claims

1. A lens- casting -mold assembling apparatus characterized by accommodating in one dust-proof room:

a concave-mold first cleaning device in which, while a concave mold having a convex-surface forming surface for a lens is being rotated, the convex-surface forming surface is abraded by an elastic abrasion member with an abradant interposed therebetween;

a concave-mold second cleaning device in which, while the concave mold is being rotated, the convex-surface forming surface is cleaned by an elastic abrasion member with water interposed therebetween;

a concave-mold drying device in which, while the concave mold is being rotated, the convex-surface forming surface is dried by supplying a volatile liquid thereto;

a convex-mold first cleaning device in which, while a convex mold having a concave-surface forming surface for the lens is being rotated, the concave-surface forming surface is abraded by an elastic abrasion member with an abradant interposed therebetween;

a convex-mold second cleaning device in which, while the convex mold is being rotated, the concave-surface forming surface is cleaned by an elastic abrasion member with water interposed therebetween;

a convex-mold drying device in which, while the convex mold is being rotated, the concave-surface forming surface is dried by supplying a volatile liquid thereto;

an inversion device which inverts the concave mold or the convex mold up or down;

a positioning device which brings geometric centers of the concave mold and the convex mold into coincidence, and which arranges the concave and convex molds in opposition with a predetermined distance spaced between the convex-surface forming surface and the concave-surface forming surface; and

a tape winding device which winds an adhesive tape onto peripheral surfaces of the positioned concave and convex molds, thereby to seal a gap between these molds.

2. A lens- casting -mold assembling apparatus characterized by accommodating in one dust-proof room:

a concave-mold first cleaning device in which, while a concave mold having a convex-surface forming surface for a lens is being rotated, the convex-surface forming surface is abraded by an elastic abrasion member with an abradant interposed therebetween;

a concave-mold second cleaning/drying device in which, while the concave mold is being rotated, the convex-surface forming surface is cleaned by an elastic abrasion member with water interposed therebetween, and in which, while the concave mold is being rotated, the convex-surface forming surface is

dried by supplying a volatile liquid thereto;

a convex-mold first cleaning device in which, while a convex mold having a concave-surface forming surface for the lens is being rotated, the concave-surface forming surface is abraded by an elastic abrasion member with an abradant interposed therebetween;

a convex-mold second cleaning/drying device in which, while the convex mold is being rotated, the concave-surface forming surface is cleaned by an elastic abrasion member with water interposed therebetween, and in which, while the convex mold is being rotated, the concave-surface forming surface is dried by supplying a volatile liquid thereto;

an inversion device which inverts the concave mold or the convex mold up or down;

a positioning device which brings geometric centers of the concave mold and the convex mold into coincidence, and which arranges the concave and convex molds in opposition with a predetermined distance spaced between the convex-surface forming surface and the concave-surface forming surface; and

a tape winding device which winds an adhesive tape onto peripheral surfaces of the positioned concave and convex molds, thereby to seal a gap between these molds.

3. A lens-casting-mold assembling apparatus as defined in claim 1 or 2, characterized in:

that the volatile liquid is warm water, and that dry-air

supply ports which supply dry air to said concave-mold drying device and said convex-mold drying device or to said concave-mold second cleaning/drying device and said convex-mold second cleaning/drying device are included.

4. A lens-casting -mold assembling apparatus as defined in claim 3, characterized in:

that a cover member which covers surroundings of the concave mold or the convex mold is disposed, that the dry-air supply port which supplies the dry air downwards is provided over the concave mold or the convex mold, and that an exhaust port is provided below the concave mold or the convex mold.

5. A lens-casting -mold assembling apparatus as defined in any of claims 1 - 4, characterized in:

that said tape winding device includes a tape roll holding device which holds an adhesive tape roll of wound adhesive tape, a tape keep device which holds a distal end side of the adhesive tape drawn out from the adhesive tape roll, a tape drawing-out device which is constructed so as to draw out the adhesive tape from the adhesive tape roll by moving in a state where the distal end side of the adhesive tape is held by the tape keep device, and to move back to its original position when the adhesive tape is to be wound onto the peripheral surfaces of the concave mold and the convex mold, a cutting device which cuts the adhesive tape, a rotation drive device which simultaneously rotates the positioned concave and

convex molds, and a press roller which is capable of abutting on and separating from the peripheral surfaces of the concave and convex molds.

6. A lens-casting -mold assembling apparatus as defined in claim 5, characterized in:

that said tape drawing-out device exerts a predetermined load on the adhesive tape in moving so as to return to its original position when the adhesive tape is to be wound onto the peripheral surfaces of the concave and convex molds.

7. A lens-casting -mold cleaning method characterized by comprising:

the abrasion step of abrading with an abradant, at least a convex-surface forming surface or a concave-surface forming surface of a concave mold having the convex-surface forming surface of a lens or a convex mold having the concave-surface forming surface of the lens;

the cleaning step of cleaning the part abraded at the abrasion step, with water; and

the drying step of supplying a volatile liquid to the part cleaned at the cleaning step, and drying said part.

8. A lens-casting -mold cleaning method as defined in claim 7, characterized in:

that the volatile liquid is warm water; and

that a water content of the cleaned part is vaporized by dry air at said drying step.

9. A lens- casting -mold assembling method characterized by comprising the positioning step of arranging in opposition, the convex-surface forming surface of the concave mold and the concave-surface forming surface of the convex mold as have been cleaned by the lens- casting -mold cleaning method as defined in claim 7 or 8, and the taping step of winding an adhesive tape onto peripheral surfaces of the concave and convex molds so as to seal a gap between these molds.

10. A lens- casting -mold assembling method as defined in claim 9, characterized in:

that said taping step draws out the adhesive tape from an adhesive tape roll of wound adhesive tape beforehand, and then winds the adhesive tape drawn out beforehand, onto the peripheral surfaces of the concave and convex molds.

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